

Title/Abstract for departmental seminar given by Jeremy Schnittman at the Rochester Institute of Technology's Center for Computational Relativity and Gravitation, November 22, 2010

"The Lagrange Points in a Binary Black Hole System: Applications to Electromagnetic Signatures"

We study the stability and evolution of the Lagrange points L_4 and L_5 in a black hole (BH) binary system, including gravitational radiation. We find that gas and stars can be shepherded in with the BH system until the final moments before merger, providing the fuel for a bright electromagnetic counterpart to a gravitational wave signal. Other astrophysical signatures include the ejection of hyper-velocity stars, gravitational collapse of globular clusters, and the periodic shift of narrow emission lines in AGN.